UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
RUDOLPH, VINCENT M

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/087,405	KUNZ, ROBERT J.
	Examiner	Art Unit	
	Vincent M. Rudolph	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>14 December 2005</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-31</u> is/are rejected.

7) ☒ Claim(s) <u>12, 16 and 25</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>26 February 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 12, 16 and 25 objected to because of the following informalities:

Regarding claim 12, the dependent claim is referring to a method, but the

independent claim is an imaging device.

Regarding claim 16, the dependent claim is referring to a computer-readable

medium, but the independent claim is a method.

Regarding claim 25, the dependent claim is claiming "the application", but the

independent claim of claim 13, claims an order processing utility.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 5-17, 24-28 and 31 are rejected under 35 U.S.C. 102(e) as being

anticipated by Mathiesen (Pub. # 20030135381).

Regarding claim 9, Mathiesen (Pub. # 20030135381) discloses an imaging

device (See Figure 1, Element 140 and 142) that inherently includes a memory for

distributing the metrics information corresponding to the imaging operations (in order for

the remote monitoring server, See Figure 1, Element 150, to obtain the metrics

information, such as the status of the printers, See Page 2, Paragraph 0016) as well as

inherently including a processor so that it is able to execute instructions from the

operatively coupled memory (such as the page count and ink level so the remote

monitoring server is able to receive it, See Page 2, Paragraph 0016). The imaging

device receives a command to perform an imaging operation (the computer system,

See Figure 1, Element 120, submits the job to the server computer, See Figure 1,

Element 130, which then transfers the files to the printer, See Page 1-2, Paragraph

0015) and then performs the print job (once the printer receives the files from server

computer, See Page 1-2, Paragraph 0015). Once the imaging operation is completed,

the metrics information is communicated to a second device (remote monitoring server,

See Figure 1, Element 150) for access by an application on a third device (a separate

device that is able to process either the billing, See Page 2, Paragraph 0017, or the

replacement ordering, See Page 2, Paragraph 0021), which accesses the metrics

information without forwarding any request to the first device (the remote monitoring

server forwards the information to the application, See Page 2, Paragraph 0017 and

0021).

Regarding claim 10, Mathiesen (Pub. # 20030135381) discloses the metrics

information comprises page count and print media type information (the number of print

media units printed and ink levels of each cartridge, See Page 2, Paragraph 0016).

Regarding claim 11, Mathiesen (Pub. # 20030135381) discloses the metrics

information is not directly solicited from the first device by the third device (since the

second device, the remote monitoring server, provides the information to the third

device, the third device does not request this information, See Page 2, Paragraph 0017

and 0021).

Regarding claim 12, Mathiesen (Pub. # 20030135381) discloses the metrics

information includes toner utilization information (the toner level in each toner cartridge,

See Page 2, Paragraph 0016).

Regarding claims 5-8, the rationale provided in the rejection of claims 9-12 is

incorporated herein. In addition, the imaging device of claims 9-12 corresponds to the

computer-readable medium of claims 5-8 and performs the steps disclosed.

Regarding claim 13, Mathiesen (Pub. # 20030135381) discloses a method for

providing real-time imaging metrics information (the remote monitoring server, See

Figure 1, Element 150, obtains the metrics information of the printer, See Page 2,

Paragraph 0016). This includes a server device (remote monitoring server, See Figure

1, Element 150) receiving the metrics information corresponding to an imaging

operation performed by the imaging device (the server receives, or monitors, the status

of the printer, such as the ink level, See Page 2, Paragraph 0016). Once the imaging

metrics is received, the server automatically communicates a portion of the imaging

metrics to an order processing utility (if the ink level is getting low, the server

communicates the data to see if a replacement cartridge through the order processing

utility is needed, See page 2, Paragraph 0021).

Regarding claim 14, Mathiesen (Pub. # 20030135381) discloses the imaging

device is a printer (See Figure 1, Element 140 and 142; Page 1, Paragraph 0013).

Regarding claim 16, Mathiesen (Pub. # 20030135381) discloses the imaging

metrics includes toner utilization information (ink level of each cartridge, See Page 2,

Paragraph 0016) and the order processing utility reorders toner based on the imaging

metrics (if it is determined the ink cartridge needs replaced, an order is automatically

placed, See Page 2, Paragraph 0021).

Regarding claim 17, Mathiesen (Pub. # 20030135381) discloses a method for

providing real-time imaging metrics information (the remote monitoring server, See

Figure 1, Element 150, obtains the metrics information of the printer, See Page 2,

Paragraph 0016). This includes a server device (remote monitoring server, See Figure

1, Element 150) receiving the metrics information corresponding to an imaging

operation performed by the imaging device (the server receives, or monitors, the status

of the printer, such as the ink level, See Page 2, Paragraph 0016). Once the imaging

metrics is received, the server automatically communicates a portion of the imaging

metrics to a billing utility (in order to charge a user's account for the amount printed, See

Page 2, Paragraph 0017).

Regarding claim 15, Mathiesen (Pub. # 20030135381) discloses the imaging

metrics includes page count (the number of sheets printed, See Page 2, Paragraph

0017) and the billing utility determines the client billing based on the imaging metrics

(the remote monitoring server tracks every print job printed so that the end user's

account is charged that amount and stored there, See Page 2, Paragraph 0017).

Regarding claim 24, Mathiesen (Pub. # 20030135381) discloses the

communication to the order processing utility is performed without communicating with

the imaging device (once the remote monitoring server receives the metrics information

from the imaging device, See Page 2, Paragraph 0016, there no need to communicate

with it again in order to communicate with the order processing utility, See Page 2,

Paragraph 0021).

Regarding claim 25, Mathiesen (Pub. # 20030135381) discloses the

communication to the order processing utility is done without it polling or querying the

server device (the remote monitoring server initiates communication with the order

processing utility so that a replacement is able to be ordered, See Page 2, Paragraph

0021).

Regarding claim 26, Mathiesen (Pub. # 20030135381) discloses the imaging

metrics are received periodically (it monitors the contents in each printer on a regular

basis, See Page 2, Paragraph 0016) and automatically communicates to the order

processing utility whenever the imaging metrics is updated (it automatically

communicates whenever the server receives the updated imaging metrics and detects

the ink is low, See Page 2, Paragraph 0021).

Regarding claim 27, Mathiesen (Pub. # 20030135381) does not disclose that the

order processing utility is located at a place other than the imaging device and the

server device, but it is inherent that it would be located separate from the remote

processing server, such as on the vendor's device, so that the server is able to place an

order and have it shipped to the end user (See Page 2, Paragraph 0021).

Regarding claim 28, Mathiesen (Pub. # 20030135381) discloses the application

can be either a billing utility of an order processing utility (the application is on a

separate device that is able to process either the billing, See Page 2, Paragraph 0017,

or the replacement ordering, See Page 2, Paragraph 0021).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 19-23 and 29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Mathiesen (Pub. # 20030135381) in view of Garr ('420).

Regarding claim 1, Mathiesen (Pub. # 20030135381) discloses a method for

distributing peripheral device operational metrics information (obtaining the content

information of the printer, See Page 2, Paragraph 0016). This includes receiving a

command to perform an imaging operation (the computer system, See Figure 1,

Element 120, submits the job to the server computer, See Figure 1, Element 130, which

then transfers the files to the printer, See Page 1-2, Paragraph 0015) and then performs

the print job (once the printer receives the files from server computer, See Page 1-2,

Paragraph 0015). Once the imaging operation is completed, the metrics information is

communicated to a second device (remote monitoring server, See Figure 1, Element

150) and then forwarded to a third device without communicating with the first device

(forwarding the information to a device that includes either order processing, See Page

2, Paragraph 0021 or a billing account, See Page 2, Paragraph 0017, without

communicating with a first device since the remote monitoring server provides the communication).

Mathiesen (Pub. # 20030135381) does not disclose the second device receiving a request from a third device to access the metrics information.

Garr ('420) discloses a third device (host computer) that requests to access the metrics information (tracks the toner gradation changes and total pages printed from the printer, See Col. 17, Line 63-Col. 18, Line 4, so a user is able to view it, See Figure 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have a host computer as a third device, such as the one disclosed by Garr ('420) and incorporate it into the distributed computing environment of Mathiesen (Pub. # 20030135381) because by having a host computer view the metrics information, a user is able to request and view the combined metrics information used on multiple printers (See Mathiesen (Pub. # 20030135381), Figure 1) from the server instead of accessing a single printer to access the metrics information.

Regarding claim 19, Mathiesen (Pub. # 20030135381) discloses a computer-readable medium for providing real time imaging metrics information (it is inherent that a remote processing server, See Figure 1, Element 150, includes a computer-readable medium so that the server is able to store the metrics information, See Page 2, Paragraph 0016). This includes a server device (remote monitoring server, See Figure 1, Element 150) receiving the imaging operational metrics information corresponding to an imaging operation performed by the imaging device (the server receives, or monitors, the status of the printer, such as the ink level, See Page 2, Paragraph 0016).

Once the imaging metrics is received, the server automatically communicates a portion

of the imaging operational metrics to an application program that executes on another

device that is different from the imaging and server device (if the ink level is getting low,

the server communicates the data to an order processing, which inherently runs on a

different device, such as on the vendor's device, so that the server is able to place an

order and have it shipped to the end user if a replacement cartridge is needed, See

page 2, Paragraph 0021).

Mathiesen (Pub. # 20030135381) does not disclose the server receiving a

request from an application program for a portion of the imaging operational metrics.

Garr ('420) discloses an application program (See Figure 7) on a host computer

that requests to access the metrics information so a user is able to view it (tracks the

toner gradation changes and total pages printed from the printer, See Col. 17, Line 63-

Col. 18, Line 4).

It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to have an application on a host computer, such as the one

disclosed by Garr ('420) and incorporate it into the computer-readable medium of

Mathiesen (Pub. # 20030135381) because by having a host computer view the metrics

information, a user is able to request and view the combined metrics information used

on multiple printers (See Mathiesen (Pub. # 20030135381), Figure 1) from the server

instead of accessing a single printer to access the metrics information.

Regarding claims 2-4 and 20-21, the rationale provided in the rejection of claims

10-12 is incorporated herein. In addition, the imaging device of claims 10-12

corresponds to the method of claims 2-4, and the imaging device of claims 10 and 12

corresponds to the computer-readable medium of claims 20-21 and performs the steps

disclosed.

Regarding claim 22, Mathiesen (Pub. # 20030135381) discloses a server

(remote monitoring server, See Figure 1, Element 150) that inherently includes a

memory for providing real-time imaging metrics information (in order for the remote

monitoring server, to obtain and store the metrics information, such as the status of the

printers, See Page 2, Paragraph 0016) as well as inherently including a processor so

that it is able to execute instructions from the operatively coupled memory (such as the

page count and ink level, See Page 2, Paragraph 0016). This includes a server device

(remote monitoring server, See Figure 1, Element 150) receiving an unsolicited set of

imaging operational metrics information corresponding to an imaging operation

performed by the imaging device (the server receives, or monitors, the status of the

printer, such as the ink level, See Page 2, Paragraph 0016). Once the imaging metrics

is received, the server automatically communicates a portion of the imaging operational

metrics to an application program that executes on another device that is different from

the imaging and server device (if the ink level is getting low, the server communicates

the data to an order processing, which inherently runs on a different device, such as on

the vendor's device, so that the server is able to place an order and have it shipped to

the end user if a replacement cartridge is needed, See page 2, Paragraph 0021).

Mathiesen (Pub. # 20030135381) does not disclose the server receiving a

request from an application program for a portion of the imaging operational metrics.

Garr ('420) discloses an application program (See Figure 7) on a host computer that requests to access the metrics information so a user is able to view it (tracks the toner gradation changes and total pages printed from the printer, See Col. 17, Line 63- Col. 18, Line 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have an application on a host computer, such as the one disclosed by Garr ('420) and incorporate it into the computer-readable medium of Mathiesen (Pub. # 20030135381) because by having a host computer view the metrics information, a user is able to request and view the combined metrics information used on multiple printers (See Mathiesen (Pub. # 20030135381), Figure 1) from the server instead of accessing a single printer to access the metrics information.

Regarding claim 23, Mathiesen (Pub. # 20030135381) discloses the second device (remote monitoring server, See Figure 1, Element 150) provides access for the metrics information to the third device when the first device (printer, See Figure 1, Element 140 and 142) communicates updated metrics information to the second device (provides information to a device that includes either order processing, See Page 2, Paragraph 0021 or a billing account, See Page 2, Paragraph 0017, whenever the server obtains updated content information from the printer, See Page 2, Paragraph 0016).

Mathiesen (Pub. # 20030135381) does not disclose the second device receiving a registration request from a third device to automatically receive the metrics information whenever it is updated.

Garr ('420) discloses a third device (host computer) that requests to access the

metrics information (tracks the toner gradation changes and total pages printed from the

printer, See Col. 17, Line 63-Col. 18, Line 4) so a user is able to view it on a job-by-job

basis (See Figure 7; Col. 18, Line 18-30).

It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to have a host computer as a third device, such as the one

disclosed by Garr ('420) and incorporate it into the distributed computing environment of

Mathiesen (Pub. # 20030135381) because by having a host computer automatically

view the metrics information, a user is able to request and view the updated and

combined metrics information used on multiple printers (See Mathiesen (Pub. #

20030135381), Figure 1) from the server instead of accessing a single printer to access

the metrics information.

Regarding claim 29, the rationale provided in the rejection of claim 25 is

incorporated herein. In addition, the method of claim 25 corresponds to the computer-

readable medium of claim 29 and provides the steps herein.

Claims 18 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Mathiesen (Pub. # 20030135381) in view of Garr ('420) as applied to claims 13, 17

and 22, and further in view of Stone and Mathworks.com.

Regarding claim 18, Mathiesen (Pub. # 20030135381) discloses configuring the

server device (remote processing server, See Figure 1, Element 150) to automatically

communicate a portion of the imaging device operational metrics to the order

processing utility (if the ink level is getting low, the server communicates the data to see

if a replacement cartridge through the order processing utility is needed, See page 2,
Paragraph 0021).

Mathiesen (Pub. # 20030135381) does not disclose receiving a registration
request from the order processing utility.

Polling is defined as a way to make continuous requests for data from another
device. Another way to have the requested information is by a real-time interrupt, which
is defined as a signal informing the program an event has happened. This can
temporarily stop a program until the interrupt is complete. The theory of polling and
interrupt have been taught since the 1983 book Microcomputer Interfacing by Harold S.
Stone, and each has its own advantages. According to Mathworks.com, polling for a
program, in this instance, is better because it can execute the request at the required
sample time rather than in a given base sample time and overload the system.

It would have been obvious to one of ordinary skill in the art at the time of
invention by the applicant to have the theory of polling incorporated into the method of
Mathiesen (Pub. # 20030135381) since polling for a program, in this instance, is better
because it can execute the request at the required sample time rather than in a given
base sample time and overload the system.

Regarding claim 30, Mathiesen (Pub. # 20030135381) discloses the
communication to the application program is done without it polling or querying the
server device (the remote monitoring server initiates communication with the order
processing utility so that a replacement is able to be ordered, See Page 2, Paragraph
0021).

Mathiesen (Pub. # 20030135381) does not disclose receiving a registration request from the application program.

Polling is defined as a way to make continuous requests for data from another device. Another way to have the requested information is by a real-time interrupt, which is defined as a signal informing the program an event has happened. This can temporarily stop a program until the interrupt is complete. The theory of polling and interrupt have been taught since the 1983 book Microcomputer Interfacing by Harold S. Stone, and each has its own advantages. According to Mathworks.com, polling for a program, in this instance, is better because it can execute the request at the required sample time rather than in a given base sample time and overload the system.

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have the theory of polling incorporated into the server of Mathiesen (Pub. # 20030135381) since polling for a program, in this instance, is better because it can execute the request at the required sample time rather than in a given base sample time and overload the system.

Regarding claim 31, Mathiesen (Pub. # 20030135381) discloses configuring the server device (remote monitoring server, See Figure 1, Element 150) to automatically communicate a portion of the imaging device operational metrics to a billing utility (the server communicates with a user's account to charge the end user for the units of media printed, See Page 2, Paragraph 0017).

Mathiesen (Pub. # 20030135381) does not disclose receiving a registration request from the billing utility.

Polling is defined as a way to make continuous requests for data from another

device. Another way to have the requested information is by a real-time interrupt, which

is defined as a signal informing the program an event has happened. This can

temporarily stop a program until the interrupt is complete. The theory of polling and

interrupt have been taught since the 1983 book Microcomputer Interfacing by Harold S.

Stone, and each has its own advantages. According to Mathworks.com, polling for a

program, in this instance, is better because it can execute the request at the required

sample time rather than in a given base sample time and overload the system.

It would have been obvious to one of ordinary skill in the art at the time of

invention by the applicant to have the theory of polling incorporated into the method of

Mathiesen (Pub. # 20030135381) since polling for a program, in this instance, is better

because it can execute the request at the required sample time rather than in a given

base sample time and overload the system.

Response to Arguments

Applicant argues that the Garr ('420) reference does not disclose a second

device receiving a request from a third device without communicating with the first

device. While Garr ('420) does not disclose this limitation, incorporating it into the prior

art of Mathiesen (Pub. # 20030135381) meets the limitation. For example, Mathiesen

(Pub. # 20030135381) discloses multiple printers the user is able to select from as well

as a remote monitoring server that obtains the content information from the printers. By

incorporating Garr ('420) into Mathiesen (Pub. # 20030135381), a user is able to

request the metrics information from the server and view it in order see how many total

toner and paper was used for the combined printers.

In addition, Mathiesen (Pub. # 20030135381) also discloses an order processing

utility (in order to determine if a replacement cartridge is needed and proceed if it is,

See Page 2, Paragraph 0021) as well as a billing utility (to an end user's account, See

Page 2, Paragraph 0017).

In light of the Mathiesen (Pub. # 20030135381) prior art, the rejection is able to

overcome the amended claims, as well as the ones incorporating Garr ('420) and Stone

and Mathworks.com.

Based on these facts, this action is made final.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure is: Motamed ('359), Tani ('Pub. # 20020059106) and Samuels

('225).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Vincent M. Rudolph whose telephone number is (571)

272-8243. The examiner can normally be reached on Monday through Friday 8 A.M. -

4:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly A. Williams can be reached on (571) 272-7471. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

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Business Center (EBC) at 866-217-9197 (toll-free).

Vmr
3/11/06

Vincent M. Rudolph
Examiner
Art Unit 2624

MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600